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ABSTRACT

This report reviews the appropriation request to the Oregon legislature. It repeats two sections of the first report (HE 001 687) dealing respectively with the basic assumptions underlying an effective program of instructional improvement, and the plan itself, which outlines measures institutions can take to improve the curriculum and instruction. The remainder of the report outlines the uses of the requested funds, if provided by the legislature. These include: the establishment at each institution in the state system of an agency responsible for: stimulating faculty awareness of institutional interest in instructional and curricular improvement; stimulating innovative efforts toward greater teaching-learning efficiency; coordinating the expertise available in the institution; and disseminating to the faculty information concerning available resources and progress in research on curricular and instructional innovation. The funds would also support faculty projects that: aim to develop undergraduate courses which emphasize student-directed study and learning; experiment with the use of television and video tape techniques; and experiment with the use of undergraduates as teachers; and promote research on teaching. (AF)

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A Plan for the Improvement of Teaching in State System Institutions, 1969-1971

Progress Report II

Discussion of the Request to the Legislature for $1 Million in the 1969-70 Biennium for Improvement of Instruction

Prepared for the
Oregon State Board of Higher Education
Committee on Academic Affairs
Meeting February 17, 1969, 7:00 P.M.
Room 327, College Center, PSU

Mrs. Elizabeth H. Johnson, Chairman
Mr. J. W. Forrester, Jr.
Mr. George H. Layman

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
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Vice Chancellor for Academic Affairs
Oregon State System of Higher Education

Office of Academic Affairs
February 17, 1969

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DISCUSSION OF THE REQUEST TO THE LEGISLATURE
FOR $1 MILLION IN THE 1969-1971 BIENNIUM FOR IMPROVEMENT OF INSTRUCTION

This present report is in response to a request from Mrs. Johnson, chairman of the board's committee on academic affairs, that the board's office review with the committee the uses to which the $1 million included in the 1969-1971 biennial budget for "improvement of instruction" would be put, if appropriated by the legislature. The report will consist of two parts: (1) an explanation of the basis of the request, and (2) the purposes to which the requested funds would be put if provided by the legislature.

Basis of the Request

The request for $1 million for improvement of instruction in the 1969-1971 biennium grew out of a recommendation made in a report to the board in May, 1968 by the board's office. The report, entitled A Plan for the Improvement of Teaching in State System Institutions, 1969-1971, was labeled Progress Report I in recognition of the fact that it was and is the intention of the board's office to provide the board with a series of reports on this general subject, that the board may be kept abreast of important developments in state system institutions in this general area of curricular and instructional improvement.

We append hereto the last two sections of the aforementioned report, entitled:

- Basic Assumptions Underlying an Effective Program of Instructional Improvement (pages 3-6)

- Continuing Efforts Toward Curricular and Instructional Improvement (pages 7-14)

We urge the board to review these statements carefully, for they represent the views of the board's office concerning the nature of the framework upon which institutional programs aimed at curricular and instructional improvement may effectively be structured. If either the basic assumptions or the proposed plan for continuing efforts toward curricular and instructional improvement is wanting in validity to any significant degree, it should be corrected.

Purposes to Which the $1 Million Would be Put

Following the presentation of the aforementioned report to the board's committee, the office of academic affairs met on July 1 and August 6 in lengthy sessions with the deans of faculty or comparable academic officers from the nine institutions of the state system and representatives of the Teaching Research Division for the purpose of discussing

instructional improvement. In addition to an examination of alternative approaches to instructional improvement, we reviewed: (1) the kinds of activities each of the several institutions desired to undertake looking to the improvement of instruction, and (2) the nature of the instructional improvement activities currently under way by the institutions or by the institutions and the Teaching Research Division jointly.

From these discussions[1] it was apparent that there was a general, strong consensus among the institutional representatives on at least three points:

1. That there is no lack of interest among faculty and administrative officers in the improvement of instructional quality.

2. That the institutions are inhibited in their instructional improvement activities by shortage of funds; that a special legislative appropriation in support of these activities would give a decided boost to efforts to improve instruction in the institutions.

3. That plans for the use of funds especially appropriated by the legislature for instructional improvement should recognize institutional differences by allowing for institutional flexibility in the use of such funds.

Following the foregoing discussions we drafted a proposal setting forth the uses to be served by the $1 million appropriation requested. The proposal, which we think to be entirely consistent with the general consensus of the institutional representatives of the state system institutions as expressed in the foregoing meetings, was included in the biennial budget document in the form in which we present it on pp. 15-19 of this present report.

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[1]Detailed minutes of these discussions are available should members of the board desire them.

Basic Assumptions Underlying An Effective Program of Instructional Improvement[1]

1. College professors, no less than workers in other occupations or professions, are guided in what they do by a consuming desire to satisfy their own "felt" needs. Faculty will give their fullest attention to the improvement of instruction when it is evident to them that this is the surest route to the fulfillment of the needs they feel.

2. Need satisfaction for the professor is rooted on the one hand in the in-dwelling sense of fulfillment that comes from teaching or research work superlatively well done, and on the other, in his desire for <u>prestige</u>, <u>security</u>, or <u>authority</u>. And despite the stereotype which represents the professor as a bemused, other-worldly character, he is a canny pursuer of the conditions which offer him the fullest promise of meeting these needs.

3. Since prestige (nationally) within one's own subject matter discipline is won most usually by one's research and publications in his discipline, rather than by the quality of his teaching at the undergraduate level, the professor who devotes himself primarily to teaching must look to his own institution for recognition and prestige.

4. Extrinsic motivation can be expressed in either a positive or a negative way. Positive motivation is represented by such things as: academic promotion, salary increments, awards, special grants in support of the professor's work, praise, granting of authority over others. These <u>enhance</u> the professor's need satisfaction.

   Nagative motivation - which <u>reduces</u> the professor's need satisfaction - is represented by such things as: unwanted or low-esteem assignments, withholding of salary increments or promotion, criticism from the dean or department head who is in a position to control salaries, promotion and tenure and the other emoluments at the disposal of the institution.

5. As simple and easy as positive motivation may appear, unless it is properly used, it may generate misunderstanding, hostility, or even rejection by the persons it was intended to benefit - as for example, in industry, where, on some occasions, efforts of the management to improve the workers' lot have sometimes been seen by workers as a sly way to gain further ascendancy over the worker by disarming him with favors granted in a paternalistic fashion.

   Closer to home, we recall the reaction of the faculties of state system institutions when the legislature appropriated a half million dollars for payment to gifted undergraduate teachers. Legislators were

[1] <u>A Plan for the Improvement of Teaching in State System Institutions, 1969-1971</u>, presented by the office of academic affairs of the Oregon State System of Higher Education to the board's committee on academic affairs, May 21, 1968, pp. 103-106.

nonplussed by the generally negative faculty reaction to this effort to augment the "need satisfaction" of undergraduate teachers through money grants - a reaction sufficiently intense to cause six of the seven multipurpose institutions of the state system to turn back to the state's general fund the funds available to them in 1966-67 for these grants rather than to participate in a program of which they did not approve.

6. There is about an institution an ethos which, to the experienced professor, is easily read and understood. Its sum is more than the total of its parts. And when that ethos says clearly to the professor that the institution's commitment is to effective instruction, the message is not easily lost upon him.

   The professor draws his clues as to the institution's devotion to and interest in effective teaching by the things the institution does to express that interest and to reward those who demonstrate a capacity for a truly professional level of instruction. He seeks these clues through an examination of such matters as these:

   a. In faculty recruitment is there, in an emphasis upon the amount of time that can be given to research and writing and the minimizing of the teaching required, an implied denigration of teaching? Or, is there a very positive emphasis upon the importance of teaching as the institution's primary role?

   b. What solid evidence is there of the president's concern that the institution be known for the quality of its teaching? What evidence that the president seeks in any systematic fashion to keep informed as to the state of teaching in the institution, or the efforts being made to encourage continuing interest in good teaching?

   c. Is there any evidence that the deans and department heads are seeking in any continuing, systematic fashion to stimulate the departments to concern with the quality of teaching?

   d. Is there any kind of institution-wide agency having speical responsibility for promoting the improvement of teaching in the institution?

   e. What kinds of special provisions are there to encourage individual faculty members interested in the improvement of their teaching? Funds, facilities (e.g., audio-visual centers, TV recording and playback equipment), time (provision for faculty to be allocated some time for special approved projects related to improvement of instruction).

   f. What efforts are made in a systematic fashion to consider teaching abilities and achievements in making of decisions as to promotion, salaries, and tenure?

7. Professors, like others, find that change is not easy. And change is likely to be even more difficult if it is felt that it is being imposed from above, particularly if it appears that the "administration"

(deans, department heads, president) is pressing for curricular or instructional changes on the basis of uncritical acceptance of roseate promises of increased educational efficiency and economy. If the faculty senses that the administration is building up false hopes as to what may be achieved by new instructional devices or methods, for example, their resistance may be more a matter of resistance to administrative incursions into the faculty's domain, than it is to the changes themselves. When this occurs, it is difficult, if not impossible to secure from the faculty an impartial, open-minded assessment of a potentially useful method or device.

As a practical matter, it is the faculty which ultimately must live with, and make operative, any curricular or other changes looking to the improvement of instruction. No effective or lasting changes in instructional matters can be achieved without their involvement, cooperation, and support.

8. Evidence suggests that most changes in higher education have been prompted by outside pressures, or have been aided by such pressures. Institutions tend to be imitative. Curricular and instructional innovations elsewhere are more likely to be considered to have relevance for the local institution under the following circumstances:

   a. When the innovation is found in an institution considered by the faculty to resemble closely the local institution. Found in a setting appreciably different from the faculties' own institutional setting, the innovation may well be considered by the faculty to be untested and unproven. It loses thereby much of its appeal for the local faculty.

   b. When the faculty can observe, firsthand, the innovation in action. No amount of descriptive material, however well prepared, whether oral or written, can equal in persuasiveness faculty visits to an institution not unlike their own to observe firsthand that an innovation works.

9. Faculty are stimulated to curricular and instructional innovating when their work is the object of overt interest by others - notably professorial and administrative colleagues, particularly from within the institution. The Hawthorne effect[1] appears to be as potent in higher education as it was shown to be in industry and in the army.

   In short, as someone has said, "Simply paying attention to what teachers are doing apparently can improve their teaching . . . . The advantage of this kind of 'overproduction' is that it tends to insure better results (at least temporarily) even from approaches which are inherently no better than those they replace."

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[1]The Hawthorne effect is so named because the experiment which demonstrated that increased production in an industrial plant could be stimulated by evidences of interest and attention from others took place in the Hawthorne plant of Western Electric, in Chicago.

10. Any systematic plan for the improvement of instruction in an institution that aims to serve very many of the faculty must recognize that professors differ in their teaching abilities, in their interest in efforts to improve teaching, and in their readiness to participate in movements aimed at improving teaching. This has two important implications for any institutional plan for seeking to stimulate interest in the improvement of instruction:

    a. No institution can move on a solid front, involving all of its teaching faculty. For all are not ready. Institutions must, of necessity, move on a broken front, involving those prcfessors who are in a state of readiness, meanwhile seeking ways to bring others to that state as soon as may be. This common sense principle is supported by psychological theory which suggests that: (1) when an individual is ready for action, action is satisfying, (2) when an individual is ready, and he is not permitted to act, he experinces a sense of frustration, and (3) when an individual is <u>not</u> ready to act and is none-the-less obliged by an outside force to act, he may feel both threatened and frustrated.

    b. The institutional plan must have numerous, different aspects to it, in order that all of the diverse interests represented by those faculty members who are psychologically ready to act can find some aspect of the plan of interest to them, at the level at which they are prepared to act.

Faculty members, no less than their students, must begin at the point where they are in their thinking. Some being further advanced in their thinking than others are prepared to operate at a different level than those less well prepared. The important thing in faculty improvement is not that everyone begin at the same level in their efforts to improve, but rather that each begin at the level of his present understanding and need and that he progress from where he is to some higher plane. The undersigned's experience with public school teachers over a period of many years bears out in dramatic fashion the importance of this principle.

Continuing Efforts Toward Curricular and Instructional Improvement[1]

This last chapter attempts to speak to the future. Our aim is to suggest some steps that might be taken in the immediate future to provide a continuing and perhaps augmented expression of the interest state system colleges and universities have shown in curricular and instructional improvement. We do not suggest that these are the only steps that might be taken with profit - or necessarily the best. However, we think they are good ones. They would move us toward more systematic attention to ways of encouraging and rewarding effective teaching and curricular and instructional improvement, generally. At the least, they should elicit discussion. If that discussion leads to the adoption of better approaches to curricular and instructional improvement than are here suggested, our ends will have been well served.

Institutional Plans for Curricular and Instructional Improvement

We believe that the desire of the institutions to encourage and to reward effective teaching, and to promote curricular and instructional improvement generally, will be more clearly evident to the faculty, more surely expressed, and more productive of results if each institution has a plan for giving systematic expression to that desire.

This is not to suggest that some elements that might become integral parts of such a plan do not already exist in the institutions. Our earlier description of a sampling of the activities to be found in the institutions of the state system indicates that each institution has some well developed activities designed to encourage and reward good teaching, and to encourage curricular and instructional improvement, generally. What we are suggesting here, however, is that a total, comprehensive, integrated plan now be developed. Those aspects of present institutional practice that have proven effective would, of course, be integrated within the total plan in some fashion.

The overall plan should be developed within the institution by whatever mechanisms will give appropriate voice to the several segments of the academic community (faculty, administration, students). Institutional plans will necessarily reflect institutional character and personality. But we should like here to suggest some elements that might reasonably be included, without, in any sense, implying that all need be, and without limiting what an institution may wish to include.

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[1] A Plan for the Improvement of Teaching in State System Institutions, 1969-1971, presented by the office of academic affairs of the Oregon State System of Higher Education to the board's committee on academic affairs, May 21, 1968, pp. 107-114.

1. Review of the curriculum and course structure of the institution.

This would consist of a plan for a curriculum-by-curriculum and course-by-course review and analysis of the curricula of the institution within the context of relevance for education in the latter third of the twentieth century. As we have earlier observed in this report, such an analysis would necessarily include such considerations as: the characteristics of the students to be served, the specific objectives and aims of each curricular program, the curricular organization and structure dictated or suggested by these objectives and aims, the most effective means of establishing a learning environment such that these objectives can be attained, the means by which departments and schools, and the institution itself, will assess the extent to which the curricular objectives are being met.

If it were well done, such a review and analysis would be arduous. If not well done, it would not be worth the time given to it. The price of academic excellence comes high.

Such a basic review and analysis of curricula necessarily opens up discussions of such basic governing matters as the following.

- The purpose and nature of general education in higher education. This is an issue of long-standing discussion in higher education. Some feel that this is one of the most important of the unmet needs of higher education, namely, the development of well conceived general education programs.

- The nature of learning and its implication for curricula and course goals or objectives. Critics in our colleges and universities continue to deride higher education for its alleged overemphasis upon factual data, memorization, emphasis on detail, and what they deem insufficient concern with "concept learning," and the development of the skills that enable the individual to become a free and independent agent in the academic world, with the incentive and the know-how to go on learning throughout a lifetime.

- Organizational structure for curricula - departmental vs. divisional or interdepartmental organization. Internal critics continue to insist that the departmental organization characterizing the subject matter disciplines (e.g., physics, chemistry, history, sociology) are inadequate to today's student needs, confronted as he is with problems that cut across the narrow disciplinary lines. Some of the newer colleges and universities are reorganizing their curricula on an interdisciplinary or multidisciplinary pattern to meet this need and this criticism.

- The extension of the academic program into the residential environment. Institutional bigness has its merits. But it is not an unmixed blessing. An increasing number of institutions are turning to grouping of students within the

institution in such fashion as to create living-learning units built into the residential patterns of the institution. Such groupings are organized around the residence halls, with, in some instances, classes, advising services, libraries, and professorial assistance all available within the residential unit. We are not suggesting that this is a pattern any of the Oregon institutions should adopt, but it is one which should be kept under surveillance and study.

- Articulation of the lower-division courses with high school offerings. Secondary schools have, in the main, been appreciably upgraded academically by the impetus given them following the launching of the Russian sputnik in 1957. There are many in higher education who feel that higher education has taken too little account of this fact in the freshman and sophomore courses offered.

- Implications of calendar innovations. We have reference here to the development of fourth-term offerings and related issues.

2. Recognition of teaching performance in appointment, promotion, tenure, and salary policies.

This is a perennial problem in college and university administration. There is no easy solution, given the difficulties of assessing teaching performance on other than subjective reports and hearsay evidence. But it is a problem which needs continuing attention, however remote may appear any truly satisfying solution.

3. Mechanisms to encourage the infusion of new knowledge and worthwhile innovations into the process of education.

Studies of innovation in elementary and secondary education as well as in higher education suggest that the climate for innovation, and the extent of innovation, are dependent to a significant degree upon: (a) faculty involvement and commitment in the planning and implementation stages, and (b) administrative interest and approbation expressed in some very tangible ways. Each is indispensable to an innovative climate. And without such climate, the gifted teachers who are interested in experimentation and innovation in teaching simply find their incentive for innovating drying up in the face of seeming indifference.

To establish an innovative climate and to encourage those faculty members who are in a state of readiness to move in a conjoint effort to the improvement of curricular and instructional practices, an increasing number of institutions are establishing administrative mechanisms designed to express institutional desire to encourage and foster innovative tendencies among the faculty.

These mechanisms sometimes include the designation of an administrative officer close to the president's seat of authority, to give leadership to instructional improvement and curricular and instructional innovating. Often combined with this administrative position is an institutional

committee, often appointed by the faculty, and having membership drawn from the faculty, but with students sometimes members, as well.

We have earlier referred in this report to the joint faculty-student Committee for Educational Experimentation, Innovation, and Improvement appointed by one state system institution to provide this kind of campus-wide support and stimulation to efforts of faculty members to improve teaching and learning.

Dr. Richard Netzel, an American Council on Education administrative intern at the University of Oregon, has visited in 1967-68 a number of institutions which are known for their innovations in higher education. In studying the lists of persons he conferred with in these institutions, one gets a sense of the fact that the institutions have developed mechanisms for giving strong administrative encouragement to curricular and instructional innovation. To illustrate:

- At Antioch College, among those he conferred with were: an official of the Office of Educational Research and Program Development who is directly responsible to the Dean of Faculties, the president of the Union for Research and Experimentation in Higher Education.

- At Michigan State University, those he conferred with included: the Assistant Director, Educational Development Program, the Director of the Learning Service, the Director of the Evaluation Services, an official of the Instructional Media Center.

- At the University of Minnesota, he conferred with the Director of the Center for Curriculum Development who is directly responsible to the Associate Vice President for Academic Affairs.

Some indication of the breadth of the responsibilities given these special administrative agencies in some institutions may be seen from the list of objectives of the Michigan State University Educational Development Program:

1. To identify major problems in the areas of the curriculum, the learning-teaching process, and the utilization of faculty, financial, and physical resources.

2. To stimulate and conduct research which will suggest solutions to identified problems.

3. To undertake projects and studies which give promise of improving both the quality and the efficiency of the undergraduate program.

4. To support and provide service to groups interested in experimentation with new procedures and methods in learning and teaching.

5. To facilitate implementation of faculty and administration approved solutions to problems.

6. To identify and communicate progress in research, experimentation and implementation.[1]

The importance of the expression of administrative and faculty interest in, and support for, curricular and instructional improvement, which the creation of mechanisms described above represents, cannot be overemphasized.

4. Plans for "teaching improvement" programs.

Reference here is to the institutional plan for supervision, pre-service, and in-service programs aimed at teacher improvement.

Earlier in this report reference was made to the fact that teaching assistants and newly appointed, inexperienced full-time faculty members would benefit from organized, systematic assistance by the institution in the development of teaching arts and skills essential to effective instruction. We noted that in the institutions having teaching assistants some departments are seeking sedulously to provide this sort of instructional leadership and supervision, although many departments do not.

There is also a broader question related to what plans, if any, may usefully be made for in-service programs for experienced faculty members.

5. Aid to instructors in appraising their performances.

We have reference here to institutional plans for assisting instructors to appraise their teaching effectiveness. Two illustrations of what institutions are currently doing along that line were described earlier in this report: (a) encouragement of staff to seek student appraisal of the teaching-learning environment for which the faculty member shares responsibility, (b) opportunity to video tape one's performance, privately, with immediate playback.

6. Application of new media to instruction.

This aspect of the plan might have been subsumed under an earlier heading relating to the infusion of worthwhile innovations into the instructional program, but is sufficiently important to warrant the special attention. We have reference here to such as: television, computers, teaching machines and programed learning of all kinds.

The work of the Teaching Research Center at Monmouth in this area has been productive and gives promise of further usefulness on a broader scale.

7. Instructional Materials Centers.

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[1]John F. Dietrich and F. Craig Johnson, "A Catalytic Agent for Innovation in Higher Education," Educational Record (Summer issue, 1967), p. 209.

8. Placing greater responsibility on the student to learn.

   We refer here to such developments as the wide variety of independent study programs to be found in American higher education, and the increasing use of general education and subject matter examinations, such as those of the College Entrance Examination Board, as a basis for granting credit for knowledge gained by whatever means.

9. Plans for improved academic advising as an aspect of the educational program.

10. Plans for special groups of students (e.g., disadvantaged).

Commitment of Resources

The improvement of the teaching-learning situation in our institutions is, in final analysis, dependent upon a number of factors, including the individual teacher, institutional arrangements which foster teaching excellence, and adequate support. Ultimately, and in great measure, however, it rests upon the individual teacher and his commitment to teaching excellence. If the quality of teaching is not as high as it ought to be, corrective action must ultimately be taken by the individual teacher, although, as we have earlier suggested in this report, institutional circumstances may, in some instances, need altering if the teacher is to be given fullest freedom to teach as well as he would like to. But it needs to be emphasized that no change in institutional arrangements will bring about higher quality instruction unless the individual teacher in the classroom wills that quality shall improve.

This is not to ignore the responsibility of students to contribute to the quality of the teaching-learning situation. The student, by taking advantage of the best that the institution can offer, and by responding actively, can make a significant contribution to the teacher's incentive for seeking teaching excellence, and to the teaching-learning environment itself.

Nor can the importance of institutional arrangements to instructional and curricular improvement be ignored. The immediately preceding section of this chapter recommended certain steps that usefully can be taken by the institutions to assess what institutional arrangements might most effectively contribute to instructional and curricular improvement.

What we wish to emphasize here is that many of the institutional arrangements that relate to the improvement of curricula and instruction will require the commitment of faculty and financial resources, if they are to be brought off effectively.

For instance, the development of the institutional plans themselves (proposed in the preceding pages of this chapter) will involve the commitment of substantial institutional resources. Moreover, it seems certain that some, if not many, of the recommendations that are developed in the institutional plans will also involve commitment of faculty and financial resources. For many kinds of endeavors, apart from higher education, have shown that

innovation and improvement are purchased only at a price. This is the lesson that industry teaches. It is the tale that agricultural development tells.

Industrial enterprises which are so much dependent upon innovation to maintain their competitive position in a fast-changing world, plow back into research and development a specified portion of their earnings as the seed upon which future corporation harvests will depend. This systematic, continuing investment in the search for innovations is an integral aspect of corporate thinking. It is what makes possible the basic and applied research which is the engine which generates the power upon which industrial progress depends.

The same might be said of agriculture, where funds invested in continuing, long-range research and development have produced agricultural productivity that is the envy of the world.

We must think of higher education in the same light. The steady, continuing, consistent investment in innovation and improvement in the teaching-learning environment and processes will serve, for education, the same purpose as the support of research and development in agriculture has served agriculture.

There is no lack of ideas among our faculties for improving curricular and instructional practices. Let the word go out that it is possible to secure financial assistance in support of plans for improving curricular and instructional practices in our institutions, and a flood of proposals will be received. We found this to be true when the board's office asked the faculties of the institutions for suggestions as to alternative ways to expend the $200,000 appropriated by the 1965 legislature for the merit award program. And the state system institution which recently established a joint faculty-student committee for educational experimentation, innovation, and improvement, is finding that, when asked, the faculty will respond with numerous worthwhile proposals, almost all of which would involve staff time and financial commitment.

What we are suggesting is that if the legislature were to make available to the state system, on a continuing basis, funds specifically for "improvement of learning," leaving to each institution the determination of how best to expend them in order to promote improved instructional and curricular policies and practices, we might anticipate a most salutary impact on innovation and improvement, far beyond the value of the funds thus invested. For this continuing expression of specific interest in instructional and curricular improvement would contribute to the development and strengthening of that institutional ethos which is so essential to the strengthening of the commitment of the individual teacher to teaching excellence.

The institutional plans which we have suggested be developed would form a useful basis for institutional decisions as to how most effectively to expend these "improvement of learning" funds on the basis of the institutional plan; each institution would be able to fix a rational priority for the purposes for which the funds would be expended.

But beyond the "improvement of learning" funds here proposed for distribution to the institutions, we would propose that additional funds be made available for expenditure on specific instructional problems that are interinstitutional in character and whose solution can most efficiently be approached by a concerted attack, involving the bringing together of a wealth of personnel and financial resources, much after the manner of the national task forces that brought forth the new curricula in physics, chemistry, and biology.

But we believe that the institutions and the board's office should have an important hand in the determination of the nature and the priority of the problems upon which these special funds are to be expended.

We are fortunate in Oregon to have a variety of agencies already in being which would lend themselves to this task force concept on an interinstitutional basis. The Teaching Research Center is the best known of these, and is, of course, well known to the board and to educators generally throughout the state. It has to its credit extensive work in some aspects of teaching research, particularly problems related to elementary and secondary education. More recently, as a beneficiary of federal funds, it has held a number of conferences on the improvement of instruction, attended by representatives from throughout the nation as well as from state system institutions. It has also developed, as a part of the same federally funded project, several films on the improvement of instruction which have been shown on educational television in recent months.

A second agency which may prove useful, in some instances, is the Center for the Advanced Study of Educational Administration at the University of Oregon. Federally funded, it is a national center for the study of educational administration.

Request for an Appropriation of $1 Million to be Expended in the 1969-1971 Biennium by the State System of Higher Education for Instructional Improvement[1]

This is a request for a special legislative appropriation for the 1969-1971 biennium in support of the improvement of undergraduate instruction in the institutions of the state system of higher education through the activities described below. It is proposed that the $1 million appropriation be available for allocation as follows:

1. $450,000 in each of the years 1969-70 and 1970-71 ($900,000 for the biennium) to the institutions of the state system of higher education.

2. $50,000 in each of the years 1969-70 and 1970-71 ($100,000 for the biennium) to the Teaching Research Division of the state system of higher education.

Request Consistent With Legislative Policy

The request for this special legislative appropriation is not inconsistent with legislative policy. Similar appropriations have been made by past legislatures. For instance, in the interests of rewarding excellence in undergraduate teaching, the 1965 Legislative Assembly appropriated $500,000 to be expended in the 1965-1967 biennium on non-recurring grants for teaching excellence to faculty members engaged in undergraduate teaching in the state system of higher education.

Role of State System Institutions

This request for a special appropriation should not be taken as evidence that the institutions have not in the past carried on, or are not now carrying on, a variety of instructional improvement activities aimed at expressing institutional conviction that high quality instruction is the first and most important function of the institutions. They have and they are. The board's office has cataloged a sampling of these institutional activities on pages 95-102 of the document prepared for the June, 1968 meeting of the state board of higher education, entitled A Plan for the Improvement of Teaching in State System Institutions, 1969-1971 (Progress Report I), dated May 21, 1968.

But the going-level budgets of the institutions will not permit them to do all they can profitably do in the interests of improving the quality of their instructional and curricular planning and in testing experimental and innovative ideas relating to improved teaching-learning situations. It is to serve these purposes that the special appropriation is requested.

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[1]This statement was written by the office of academic affairs in support of the request for a legislative appropriation of $1 million for the improvement of instruction in the 1969-1971 biennium.

The requested appropriation would permit the institutions to:

1. Establish at each institution what is badly needed there - namely, an institutional agency (Center for Educational Experimentation, Innovation, and Improvement, as one institution calls it) with responsibility for:

   a. stimulating faculty awareness of institutional interest in curricular and instructional improvement.

   b. stimulating innovative and experimental efforts to greater teaching-learning efficiency in the institution.

   c. coordinating the expertise available within the institution in the interests of the development of more efficient instruction through experimentation and innovative approaches to teaching and learning.

   d. disseminating to faculty information concerning resources available to assist them as they innovate and experiment and seek generally to improve the efficiency of learning.

   e. disseminating to the faculty information concerning progress in research, experimentation, and application of curricular and instructional improvements in the institution and elsewhere in the academic world.

   f. providing staff assistance to institutional curricular planning.

2. Support faculty projects which have for their aim the following:

   a. Development of courses of instruction and instructional materials for high-enrollment undergraduate courses that will place much greater emphasis upon student-directed study and learning than do present traditional courses.

   Research and experimentation in education has demonstrated that where a self-directed course or program is framed in terms of the objectives of the traditional, structured course which calls upon students to master a substantial store of facts, concepts, and principles, these can be acquired more efficiently, with less time and greater precision, from "programed" self-teaching materials than from the traditional course. Such self-teaching courses or materials may include tape recordings of instructions by the professor, still or motion picture projections of natural events, scientific phenomena, or historical incidents, models of various kinds, and similar teaching aids. The development of these self-teaching courses or materials involves the collaboration of the subject matter specialist (such as the college professor who teaches the courses) and behavioral scientists expert in instructional design and evaluation.

   These self-teaching materials or courses appear to have a number of advantages over traditional courses:

   (1) They permit students to proceed at their own individual rates of learning. Some students achieve mastery of content quickly,

others more slowly. In the self-teaching course the faster students are not delayed by the slower; the slower students may proceed to mastery of content at a pace efficient for them and without the ennervating sense of pressure, and often inadequacy, that slower students experience in seeking to keep abreast in a class forced to accommodate as best it can the needs of students of widely varying abilities.

(2) They permit the instructor to use his time to a better advantage. For the self-teaching courses and materials free the teacher to concentrate on the aspects of education that have the most relevance for lasting good, namely, the encouragement in students of the development of analytical skills, attitudes, habits of mind, and understandings that will give the student the means and the incentive for continuing his education throughout a lifetime.

(3) They place a proper emphasis upon the student's role in the teaching-learning equation. Learning is not a passive experience. If learning is to be efficient, the student must be an active agent. The self-teaching course materials cast the student in the most active of roles.

(4) Self-teaching courses, because of the carefully structured sequence of their content and the necessary care with which evaluative techniques are built into the course, permit a ready assessment of the student's achievement, and, therefore, the effectiveness of the instruction.

State system experience with the Dental School course in dental anatomy, developed by the Dental School and the Teaching Research Division of the state system over a three-year period, bears out the hope of the efficiency to be realized in the self-directed, self-teaching approach in at least some types of courses. Development of experimental course materials in such high enrollment undergraduate courses as English composition, basic biology, basic college mathematics, basic psychology, etc. would permit the institutions to develop and to test similar self-directed teaching-learning approaches to these subject matter areas.

Some limited, under-financed efforts involving SOC and OSU, respectively, and the Teaching Research Division are under way to develop self-teaching materials in biology and English composition. Additional under-financed and limited efforts are under way to develop self-teaching materials in the "self-learning center" of the school of forestry at OSU. The legislative appropriation being requested for the 1969-1971 biennium would permit a more nearly adequate financing of these and similar efforts in state system institutions to achieve by innovative work a break-through in efficiency of teaching-learning in a wider selection of courses.

b. <u>Experiment with the use of television and video tape techniques for more efficient group and individualized instruction and to provide teachers with an effective means of self-evaluation</u>.

No doubt there will be continuing interest in experimentation in the use of television in the offering of entire courses, particularly lower-division undergraduate courses having multiple sections and enrolling many students. Such experimentation is useful and needed. When and as televised lectures are sufficiently skillfully done that they overcome some of the antipathy of students for "canned" lectures, televised courses may provide a means for taking the educational program into dormitories as well as into campus classrooms.

But television can be used in numerous other ways for the improvement of instruction because of its capacity: (1) for enrichment of regular instruction and for superior demonstration-type lectures which require close-up viewing, such as in biology and chemistry, (2) for special applications, such as in teacher education, (3) for concentrating many outstanding teachers in the classroom instantaneously and repeatedly, (4) for capturing contemporary figures and phenomena, and (5) for permitting the individual, whether students seeking to acquire certain skills, or teachers seeking to assess their teaching effectiveness, to see themselves (on video tape) as others see them.

In particular, as one of the deans of faculty has noted, with the development of closed-circuit television and the small video tape systems, television is now adaptable to individualized instruction and to independent study. Small portable video tape systems are being used with great effectiveness in the teaching of complex psychomotor skills and personal-social skills by a technique called "self-confrontation." If a student is video taped as he is learning a complex skill, then permitted to study his own performance immediately afterward, he is able to correct his mistakes more effectively than when conventional teaching techniques are employed. The instructional procedures are so simple, it is noted, that they are easily adaptable to independent study and to off-campus use with minimal supervision.

Some of the state system institutions have been experimenting with the use of video tape playback for instructors as a means of enabling instructors to see themselves as they are seen and to secure from colleagues effective constructive criticism of their instruction, as we described in the report on improvement of instruction made to the board of higher education on May 21, 1968, and referred to on page 15.

c. <u>Experiment with the use of undergraduates as part of instructional team.</u>

This experimentation would represent an extension of the experimentation of certain well known psychologists who are at home in the field of the techniques of teaching and learning. It would involve some aspects of programed instruction, earlier referred to. It is thought to have several possible advantages, such as (1) a more active involvement of gifted undergraduates in the teaching-learning situation, (2) freeing of the instructor from some of the teaching routine associated with the traditional classroom situation, enabling

him thus to devote himself to the more meaningful relationships with the students which we suggested in our earlier reference to the development of self-teaching courses on page 16.

d. Provide faculty members with needed education and training in the dynamics of the learning situation, and the application of this knowledge to the upgrading of their own courses. College instructors tend to be better versed on the subject matter content of the area in which they teach than they are on the psychology of learning, the dynamics of the teaching-learning situation, the uses of new technologies in teaching, and alternative teaching-learning strategies. These latter understandings are critical to effective instruction. If faculties were provided organized, systematic assistance with these latter areas by behavioral scientists having real expertise in these fields, they could, in the process, improve and upgrade their teaching effectiveness. One institution has developed a well-thought-out proposal to provide this kind of systematic staff attention to these matters in a practical application to their course content. Such activities require some released time for faculty and other assistance, including the assistance of qualified behavioral scientists with experience in the teaching-learning areas.

Allocation to the Teaching Research Division

It is proposed that $100,000 of the requested $1 million for the 1969-1971 biennium be allocated to Teaching Research Division to provide basic staff support to enable the division to provide more adequately for consultant service to the institutions of the state system.

The Teaching Research Division is receiving state support in the amount of $115,000 for 1968-69. The $50,000 annual additional allocation here proposed for the years 1969-70 and 1970-71 will bring state support of the division to approximately $165,000 annually.

As the Teaching Research Division worked so effectively with the Dental School faculty in the development of the improved course in dental anatomy, so, it is expected, it would be prepared to work with the other institutions of the state system on similar projects in other subject matter areas during 1969-1971, and on other projects aimed at the improvement of instruction, as set forth earlier in this statement.

The special expertise which the Teaching Research Division behavioral scientists have in such areas as the learning theory and its practical applications, evaluation of learning, new technologies in teaching, and alternative strategies in teaching, have numerous applications to the problems of instructional improvement in the colleges and universities of the state system. The added funding here proposed would permit the division to make more such consultant services available to the institutions. It is also possible that if the funding for teaching research, which is here proposed, proves inadequate to the needs of the institutions for the division's consultant services, the institutions will be able from their resources to augment the Teaching Research Division's resources in return for the added consultant services needed by the institutions.